

CLAIMS (amended)

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7. (Original) An optical information recording method for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized in that when data recording is performed on one recording layer, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer is examined by using recording layer management information and if data recorded and unrecorded parts are mixed together in an area whose recording state is examined, an area for recording data of

said one recording layer is moved to another area.

8. (Original) An optical information recording and reproducing method for recording/reproducing data on and from an optical information recording/reproducing medium

5. having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam, characterized in that when data reproducing is performed on one recording layer, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer is examined by using recording layer management information and if data recorded and unrecorded parts are mixed together in an area whose recording state is examined, data is reproduced from said one recording layer after dummy data is recorded in the data unrecorded part.

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9. (Original) An optical information recording method for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

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characterized in that when data recording is performed on one recording layer, a recording state of the other recording layer nearer a laser beam incident surface than said one recording layer is examined by using recording layer management information and if data recorded and unrecorded parts are mixed together in an area whose recording state is examined, data is recorded on the one

recording layer after dummy data is recorded in said data unrecorded part.

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16. (Original) An optical information recording device for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a 20 laser beam,

characterized by comprising at least reproducing means for reproducing recording layer management information containing at least information indicating recording states of the recording layers, condensing means for condensing a laser beam on a recording layer on which data is recorded, and laser beam power switching means for examining, when data recording is performed on one

recording layer by said condensing means, a recording state
of the other recording layer nearer a laser beam incident
surface than said one recording layer by using the
recording layer management information reproduced by said
5 reproducing circuit, and changing setting of a laser beam
output for the recording based on a recording state of an
area of said other recording layer stacked on an upper part
of an area in which the recording is performed,

10 and in that if data recorded and unrecorded parts
are mixed together in the area of the other recording layer
stacked on the upper part of the area in which the
recording is performed, the area in which the recording is
performed by the condensing means is moved to another area.

15 17. (Original) An optical information recording and
reproducing device for recording or reproducing data on or
from an optical information recording and reproducing
medium having a plurality of recording layers which allow
recording and reproducing by irradiation with a laser beam,

20 characterized by comprising at least reproducing
means for reproducing recording layer management
information containing at least information indicating
recording states of the recording layers, condensing means
for condensing a laser beam on a recording layer on/from
which data is recorded or reproduced, and laser beam power
25 switching means for examining, when data is reproduced from
one recording layer by said condensing means, a recording
state of the other recording layer nearer a laser beam

incident surface than said one recording layer by using the recording layer management information reproduced by said reproducing circuit, and changing setting of a laser beam output for the recording or reproducing based on a

5 recording state of an area of said other recording layer stacked on an upper part of an area in which the recording or reproducing is performed,

and in that if data recorded and unrecorded parts are mixed together in the area of said other recording 10 layer stacked on the upper part of the area in which the recording or reproducing is performed, said condensing means reproduces data from said one recording layer after dummy data is recorded in the data unrecorded part.

15 18. (Original) An optical information recording device for recording data on an optical information recording and reproducing medium having a plurality of recording layers which allow recording and reproducing by irradiation with a laser beam,

characterized by comprising at least reproducing 20 means for reproducing recording layer management information containing at least information indicating recording states of the recording layers, condensing means for condensing a laser beam on a recording layer on which data is recorded, and laser beam power switching means for examining, when data is recorded on one recording layer by said condensing means, a recording state of the other recording layer nearer a laser beam incident surface than

said one recording layer by using the recording layer management information reproduced by said reproducing means, and changing setting of a laser beam output for the recording based on a recording state of an area of said 5 other recording layer stacked on an upper part of an area in which the recording is performed,

and in that if data recorded and unrecorded parts are mixed together in the area of said other recording layer stacked on the upper part of the area in which the 10 recording is performed, said condensing means records data on said one recording layer after dummy data is recorded in the data unrecorded part.

19. (Original) An optical information recording and reproducing medium having a plurality of recording layers 15 which allow recording and reproducing by irradiation with a laser beam,

characterized in that each recording layer comprises a recording area in which user data is recorded, and a recording management area in which recording layer 20 management information containing at least information indicating recording states of a plurality of areas into which the inside of said recording area is divided is recorded,

and recording layer management information of one recording layer is recorded in each of the recording management areas of said one recording layer and one or 25 more recording layers farther from a laser beam incident

surface than said one recording layer.

20. (Original) The optical information recording and reproducing medium according to claim 19, wherein defect management information indicating a defect position of said recording layer is further recorded in the recording management area of each recording layer.

21. (Original) The optical information recording and reproducing medium according to claim 20, wherein the defect management information of said one recording layer 10 is recorded in a recording management area of the other recording layer.

22. (Original) The optical information recording and reproducing medium according to claim 19, wherein a guide groove of a wobbling shape is formed in at least one track 15 of said recording layer, and the guide groove of the wobbling shape is subjected to track modulation for indicating a track address.